



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,522	12/05/2003	Romain Desplats	2036/US/2 (1959/US/2)	8276
20686	7590	10/04/2004	EXAMINER	
DORSEY & WHITNEY, LLP INTELLECTUAL PROPERTY DEPARTMENT 370 SEVENTEENTH STREET SUITE 4700 DENVER, CO 80202-5647			KOBERT, RUSSELL MARC	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,522	<b>Applicant(s)</b> DESPLATS ET AL.	
	<b>Examiner</b> Russell M Kobert	<b>Art Unit</b> 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 26-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0604</u> . | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's election with traverse of Species 1(d) and Sub-Species 2(I), claims 1-25 in the reply filed on August 16, 2004 is acknowledged. The traversal is on the ground(s) that the two set of claims do not present a serious burden on the Examiner as the two sets of claims do not appear to represent separate classifications, separate statuses in the art or separate fields of search. This is not found persuasive because Applicants have not shown that the groups are not patentably distinct. Admission on the record by Applicants that the groups are not patentably distinct will result in rejoinder. Applicants appear to be arguing that same subclass of classification means same invention. If such were carried to its logical conclusion there could only be one patent per subclass and Applicants could be denied a patent on the basis that there is already at least one patent in Class 324, Subclass 752. With regard to the "no burden" argument, it is noted that each distinct invention beyond one is a burden in that it draws the attention of the Examiner to its own requirements. Examination requires focus to follow search leads and patterns of logic in formulating applications of the prior art to that which is claimed. When the Examiner has to pursue several search patterns of logic simultaneously or serially, added burden is presented. In order to examine several inventions and/or species simultaneously or serially, added effort beyond that necessary for one invention or species must be expended. Where the effort is serial and the jobs are different the added burden is obvious. Digging two equal holes of the same size requires twice the effort of digging one hole. Such is an obvious conclusion. It can be argued that some inventions or species can be examined simultaneously but such is true only if they are not patentably distinct, that is, if that which applies to any one

applies to all others. Where inventions or species are patentably distinct each requires separate consideration. As a for instance, consider a properly restrictable apparatus and method of use of that apparatus where one has details without correspondence in the other. Finding references anticipating or making obvious one does not necessarily render the other unpatentable. Having to examine the other constitutes a burden. If the apparatus and method of the above example are not patentably distinct no burden is presented in examining both since if one falls the other falls as well. As a second for instance, consider a properly restrictable combination and subcombination where all the details of the subcombination are not necessary for the combination. Finding references anticipating or making obvious one does not necessarily render the other unpatentable. Having to examine the other is a burden. If the combination and subcombination of the above example are not patentably distinct no burden is presented in examining both since if one falls the other falls as well. Admission on the record that the groups are not patentably distinct will result in rejoinder.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 26-63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on August 16, 2004.

Art Unit: 2829

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Kash et al (6496022).

Kash et al anticipates a method for reducing diagnostic time of a photon detecting integrated circuit tester, the method comprising:

processing a CAD database associated with an integrated circuit; and defining at least one CAD layer from the CAD database, the at least one CAD layer identifying at least one expected photon emission source of the integrated circuit (col 2, ln 66 - col 3, ln 6); as recited in claim 1.

As to claim 2, aligning the tester with the at least one CAD layer to correlate the tester with the at least one expected photon emission source is anticipated by Kash et al (col 3, ln 59-67).

As to claim 3, identifying photon emissions from the at least one expected photon emission source, the photon emissions detected by the tester during operation of the integrated circuit is anticipated by Kash et al (col 5, ln 53-64).

As to claim 4, the operation of identifying photon emissions from the at least one expected photon emission source comprises receiving photon emission through a semiconductor substrate of the integrated circuit is considered an inherent function of a PICA system disclosed by Kash et al.

As to claim 5, the photon emissions detected by the tester during operation of the integrated circuit in a test loop is an inherent function of a PICA system disclosed by Kash et al. (see also col 6, ln 40-53)

As to claim 6, determining at least one operating characteristic of the at least one expected photon emission source (col 6, ln 31-39) is anticipated by Kash et al.

As to claim 7, the operation of determining the at least one operating characteristic comprises determining timing measurements employing a single photon counting technique (col 5, ln 65 - col 6, ln 11).

As to claim 8, comparing the at least one operating characteristic of the at least one expected photon emission source with a simulation of the operating integrated circuit (col 6, ln 54 - col 7, ln 6) is anticipated by Kash et al.

As to claim 11, the at least one expected emission source is at least one transistor (col 4, ln 64 - col 5, ln 5) is anticipated by Kash et al.

As to claim 21, having the tester comprising an optical detector is considered an inherent function of the PICA system disclosed by Kash et al.

As to claim 22, having the tester comprising a laser scanning microscope was noted by Kash et al as a prior art method (col 2, ln 54-65).

As to claim 23, having the tester comprising a picosecond imaging circuit analysis detector is considered an inherent function of the PICA system disclosed by Kash et al.

As to claim 24, having the tester comprising a static emission detector (col 5, In 30-33) is considered an inherent function of a PICA system disclosed by Kash et al.

Moreover, the limitations of claims 9, 10, 12-20 and 25 are considered an inherent use of the apparatus disclosed in Kash et al.

5. Claims 1-4, 6, 11-25 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Harrison et al (6521479); (Ref: col 1, In 16-17, 26-62; col 2, In 20-21; col 3, In 25-54).

6. Claim 1 is rejected under 35 U.S.C. 102(e) as being clearly anticipated by Cotton et al (6621275); (Ref: col 7, In 7-16).

7. A shortened statutory period for response to this action is set to expire three month(s) from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Art Unit: 2829

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963. The Examiner's Supervisor, Michael J. Tokar, can be reached at (571) 272-1812. For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert  
Patent Examiner  
Group Art Unit 2829  
September 22, 2004



ERNEST KARLSEN  
PRIMARY EXAMINER